

Space Weather Forecast

Issued on Friday, 05 April 2024 at 01:14 Local

This forecast provides a four day assessment of space weather events. The probabilities stated below are for reaching or exceeding the given levels. For more information about space weather impacts please see the Met Office Space Weather Scales <https://www.metoffice.gov.uk/weather/learn-about/space-weather/uk-scales>

Space Weather Forecast Headline: No significant Space Weather activity expected.

Analysis of Space Weather Activity over past 24 hours

Solar Activity: Solar activity has been Very Low with no significant flare activity observed. There are four sunspot regions on the visible disc, all of which are magnetically simple and inactive. No Earth-directed Coronal Mass Ejections (CMEs) were observed.

Solar Wind / Geomagnetic Activity: Solar wind speeds were initially at background levels, but increased to become slightly elevated or elevated due to the connection with a fast solar wind. The total strength of the Earth's magnetic field was initially weak, but increased to become moderate for a period following the arrival of the fast solar wind, then easing later to weak levels again. The important north-south component was weakly northwards to start, but became predominantly weakly negative from 04/0920 UTC. Geomagnetic activity was Quiet to Unsettled.

Energetic Particles / Solar Radiation: The count rate of energetic particles (high energy protons) was at background levels with no solar radiation storms observed.

Four-Day Space Weather Forecast Summary

Solar Activity: Low to Very Low activity is expected, with a slight chance of isolated Moderate flares.

Solar Wind / Geomagnetic Activity: No Earth-directed CMEs are forecast. Solar wind speeds are at slightly elevated levels due to ongoing coronal hole enhancements. Speeds are forecast to decrease in the coming days, returning to background levels with no further significant enhancements expected during the period. Geomagnetic activity is forecast to be Quiet to Unsettled on Day 1 (05 Apr), with the chance of isolated Active intervals at first. Mainly Quiet activity is expected through Days 2-4 (06-08 Apr).

Energetic Particles / Solar Radiation: The count rate of energetic particles (high energy protons) is expected to remain at background levels.

Geomagnetic Storms:

Geo-Magnetic Storm	Level	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC)	Day 2 (00-24 UTC)	Day 3 (00-24 UTC)	Day 4 (00-24 UTC)
Probability (Exceedance)			(%)	(%)	(%)	(%)
Minor or Moderate	G1 to G2	No	5	1	1	1
Strong	G3	No	1	1	1	1
Severe	G4	No	1	1	1	1
Extreme	G5	No	1	1	1	1

Radio Blackouts - X Ray Flares:

X Ray Flares	Level	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC)	Day 2 (00-24 UTC)	Day 3 (00-24 UTC)	Day 4 (00-24 UTC)
Probability			(%)	(%)	(%)	(%)
Active	R1-R2 M Class	No	5	10	10	10
Very Active	R3 to R5 X	No	1	1	1	1

Solar Radiation Storms - (High Energy Protons):

Radiation Storms	Level (cm ⁻² sr ⁻¹ s ⁻¹)	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC)	Day 2 (00-24 UTC)	Day 3 (00-24 UTC)	Day 4 (00-24 UTC)
Probability (Exceedance)			(%)	(%)	(%)	(%)
Active	≥ S1	No	1	1	1	1
Very Active	≥ S3 *	No	1	1	1	1

* S3 ≥ 10 MeV ≥ 1000 pfu and / or ≥ 50 MeV ≥ 10 pfu. (pfu = cm⁻²sr⁻¹s⁻¹)